

# **Qualification Standard for the Office of Safety and Emergency Management Evaluations Site Lead Program**




**May 2011**

**Office of Enforcement and Oversight  
Office of Health, Safety and Security  
U.S. Department of Energy**

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Office of Safety and Emergency Management Evaluations  
Site Lead Program**


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5/23/2011  
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5/23/11  
Date

## **Qualification Standard for the Office of Safety and Emergency Management Evaluations Site Lead Program**

A Site Lead is an individual, normally at a senior General Schedule (GS) level or Excepted Service, who is assigned the responsibility to assess and evaluate management systems, safety and health programs, and technical activities associated with U.S. Department of Energy (DOE) nuclear and non-nuclear facilities. Typically, a Site Lead has previously qualified as a Nuclear Safety Specialist or a Senior Technical Safety Manager. For exceptionally qualified individuals, the Director, DOE Office of Safety and Emergency Management Evaluations, may designate an individual as a Site Lead candidate. The Site Lead's primary responsibility is to perform independent safety oversight at the assigned site(s) with a focus on safety performance. This responsibility is accomplished primarily by maintaining operational awareness; performing, leading, or participating in or shadowing onsite reviews; and providing expertise and information to DOE line management.

### **PURPOSE**

This Qualification Standard establishes common functional area competency requirements for personnel assigned as Site Leads in the Office of Safety and Emergency Management Evaluations. Satisfactory and documented completion of the competency requirements contained in this Standard ensures that employees possess the minimum requisite competence to fulfill their functional area duties and responsibilities. This Standard is integrated with existing qualification standards developed by DOE in accordance with DOE Order 426.1, *Federal Technical Capability*.

### **APPLICABILITY**

This Standard applies to all Office of Safety and Emergency Management Evaluations staff assigned as Site Leads.

### **IMPLEMENTATION REQUIREMENTS**

The competencies contained in the Standard are divided into the following three categories:

1. Performance Assessment, Oversight, and Mission Support
2. Technical
3. Regulatory

Each of the categories is defined by one or more competency statements indicated by bold print. Each of the competency statements is further explained by a listing of supporting knowledge and/or skill statements.

The competency statements define the expected knowledge and/or skill that an individual must possess to meet the intent of each category. The supporting knowledge and/or skill statements further describe the intent of the competency statements. However, an individual does not

necessarily have to fulfill every supporting knowledge and/or skill statement to meet the intent of the broader competency statement.

Where appropriate, an individual will be determined to exhibit either a working-level or expert-level knowledge of each competency. These levels are defined as follows:

- **Working level** is defined as the knowledge required to monitor and assess operations/activities, to apply standards of acceptable performance, and to reference appropriate materials and/or expert advice as required to ensure the safety of Departmental activities.
- **Expert level** is defined as a comprehensive, intensive knowledge of the subject or process sufficient to provide advice in the absence of procedural guidance.

Documentation of the completion of the requirements of this Standard shall be included in the employee's training and qualification record.

Equivalencies may be granted for individual competencies based upon an objective evaluation of the employee's prior education, experience, and/or training. Documentation of equivalencies shall indicate how the competency requirements have been met. The supporting knowledge and/or skill statements should be considered when evaluating an individual's ability with respect to each competency requirement. Appendix B, Technical Qualification Program Site Lead Qualification Card, is to be used for documenting equivalencies.

## **KNOWLEDGE, DUTIES, AND RESPONSIBILITIES**

The following are knowledge, duties, and responsibilities normally expected of the Office of Safety and Emergency Management Evaluations personnel assigned to the functional area of Site Lead:

- A. Must possess acumen and acknowledged safety expertise sufficient to develop and sustain trust with senior DOE site management in supporting site safety priorities and objectives.
- B. Must have knowledge of Office of Safety and Emergency Management staff technical competencies and commensurate ability to effectively coordinate oversight of specific site safety functions.
- C. Must have the ability to provide an overall systematic assessment of site safety performance and to characterize the major issues and perspectives to line management.
- D. Must possess practical safety culture knowledge.
- E. Must have diplomatic skills to effectively interface with a broad range of site personnel, from site director to craft labor.

- F. Must possess the knowledge to effectively conduct objective and independent appraisals using and interpreting applicable performance objectives and criteria, standards, and requirements.
- G. Must be able to develop and communicate an appraisal plan for management systems and technical programs that defines the appraisal scope and approach, and identifies applicable standards, necessary personnel, required documents and tools, and the appraisal agenda.
- H. Must be able to effectively execute an appraisal plan, including conducting scoping meetings; performing the appraisal, using generally accepted auditing techniques; conducting any required team meetings; and verifying, documenting, and communicating findings within the defined scope and approach.
- I. Must be able to objectively present and communicate verified instances of non-conformance with criteria, standards, requirements, and management systems and technical performance objectives, and must be able to evaluate the effectiveness of the resultant follow-up or corrective action activities.
- J. Must know and be able to apply auditing tools and techniques, such as performance observation techniques, interviewing, performance testing and physical examination techniques, and causal analysis.
- K. Must be able to clearly communicate, verbally and in writing, technical details of nuclear safety issues, observations, and concerns that are often politically sensitive, nuanced in impact, and complex in nature.

## **RECOMMENDED BACKGROUND**

The education and experience requirements for a Site Lead are:

1. Education: Bachelor of Science degree in engineering or a related science, health, or technical-related field or equivalent. Meets the qualification standards for at least one of the relevant functional areas, Nuclear Safety Systems, or Senior Technical Safety Manager.
2. Experience: DOE or nuclear industry-related and other experience that provides specialized background in leadership, management, or performance of oversight/evaluation/appraisal/audit in nuclear programs. Specialized experience can be demonstrated through possession of the competencies outlined in this Standard. Additionally, the individual needs to meet and maintain the qualification standards for at least one of the functional areas listed in item 1 above.

## **REQUIRED COMPETENCIES**

The competencies specified in this Standard are distinct from those contained in the DOE General Technical Base Qualification Standard. All Office of Safety and Emergency Management Evaluations personnel must complete the competency requirements of the General

Technical Base Qualification Standard prior to or in parallel with the completion of the competency requirements contained in this Standard and the standards for one or more of the functional areas listed above. Each of the competency statements identified below defines the level of expected knowledge and/or skill that an individual must possess to meet the intent of this Standard. The supporting knowledge and/or skill statements further describe the intent of the competency statements.

## **1. PERFORMANCE ASSESSMENT AND OVERSIGHT**

### **1.1 A Site Lead shall have demonstrated working level site knowledge sufficient to provide targeted performance assessment and oversight.**

Supporting Knowledge and/or Skills. A Site Lead shall demonstrate:

- a) Knowledge of site organizational structure, mission, goals and objectives, major driving forces, significant issues and events, and projected milestones.
- b) Understanding and recognition of the site processes for categorizing, addressing, and implementing appropriate actions with respect to internal, self-, and external assessments by various interested and stakeholder organizations.
- c) Knowledge of site oversight processes, evaluation schedule, and potential impacts.
- d) Understanding of site contracts, budget, budget impacts, and extra budgetary activities affecting mission priorities and site infrastructure issues.
- e) Knowledge of workforce structure, skills, and abilities, and shortfalls and mismatches in workforce knowledge, skills, and abilities.
- f) Familiarity with senior site management's view of site safety culture and mission support assistance and enhancement areas.
- g) Awareness of site stakeholders' views of site performance and findings.
- h) Knowledge of site contractors' performance.
- i) Knowledge of site nuclear facilities/issues.

### **1.2 A Site Lead shall demonstrate an expert-level knowledge of appraisal techniques (such as observations, interviews, and document reviews) for assessing system performance, reporting results of appraisals, and following up on action taken as the result of appraisals.**

Supporting Knowledge and/or Skills. A Site Lead shall demonstrate the ability to:

- a) Describe the environment, safety, and health systems assessor/appraiser's role in

oversight of DOE sites and operations.

- b) Describe appraisal requirements and limitations in the assessor/appraiser's interface with contractor employees.
- c) Conduct interviews with various levels and types of personnel, including managers as well as technical and administrative staff, during an audit.
- d) Explain the essential elements of performance-based, compliance-based, and management systems assessments, including the areas of investigation, fact-finding, and reporting.
- e) Describe the contents of an appraisal report.
- f) Explain the essential elements and processes associated with the following assessment activities:
  - Planning
  - Onsite activities
  - Report development
  - Quality Review Board
  - Validation
  - Closeout
  - Corrective action follow-up
- g) Describe the actions to be taken if the contractor challenges findings, and explain how such challenges can be avoided.
- h) Present and discuss the results of appraisals in formal meetings between DOE management and senior contractor management.

**1.3 A Site Lead shall display effective skills during the development and communication of the appraisal plan.**

Supporting Knowledge and/or Skills. A Site Lead shall demonstrate the ability to:

- a) Make sound judgments about key and priority issues based on objective evidence collected through a review and evaluation of information contained in documents.
- b) Implement and communicate the key processes and methodology used in the trending and analysis of operations information and the resulting impact on management planning activities.
- c) Using an actual list of performance indicators (e.g., lost work, exposure), determine what type of assessments should be performed and in what areas.

- d) Given a set of incident/occurrence report data for a specified period, analyze the information for safety trends or compliance problems.
- e) Write concise appraisal plans that discuss the purpose, scope, and approach to the evaluation of management systems and/or safety programs; outline the review topics; organizations and individuals to be interviewed; documents to be reviewed; monitoring, sampling, and testing procedures or operations to be observed; and team interfaces necessary to effective and efficient team integration.
- f) Conduct/participate in team and DOE management briefings discussing the appraisal plan, and make modifications at the direction of management.

**1.4 A Site Lead shall display effective communication skills during the conduct of an appraisal.**

Supporting Knowledge and/or Skills. A Site Lead shall demonstrate the ability to:

- a) Clearly communicate to management and/or staff the appraisal plan.
- b) Clearly and fluently present findings and appraisal results in report(s) and briefings before management and/or staff.
- c) Demonstrate sufficient objectivity and independence during the conduct of an appraisal in order to accomplish assigned appraisal responsibilities.
- d) Display diplomacy, tact, and the ability to listen in order to promote effective and efficient appraisal performance.
- e) Possess sufficient organizational skills to complete assigned responsibilities during the conduct of an appraisal.
- f) Conduct/participate in team meetings and site briefings, discuss the results of appraisal activities, and modify individual appraisal activities at the direction of topic coordinators and team management.
- g) Prepare and complete clear, concise working papers that document the work performed, techniques used, and conclusions reached while conducting the appraisal.
- h) Properly conduct interviews that are planned and coordinated with team members and management to accomplish the desired results in a time-effective manner.
- i) Employ verification strategies, based upon the evaluation of the strengths and weaknesses associated with systems and programs reviewed, to ensure that key issues are covered in sufficient depth during the appraisal.
- j) Be able to develop testing plans, gather data, perform verification testing, clearly



document results, and communicate results to team members.

## **2. TECHNICAL**

### **2.1 A Site Lead shall qualify under the Nuclear Safety Systems or Senior Technical Safety Manager functional areas as defined in the Department's qualification standards.**

#### Supporting Knowledge and/or Skills

See the Functional Area qualification standards handbook for the competency requirements for the specific functional area.

## **3. REGULATORY**

### **3.1 A Site Lead shall demonstrate an expert-level of knowledge of the independent assessment process as outlined in DOE Order 227.1, the Office of Oversight Appraisal Process Guide, and the Office of Safety and Emergency Management Evaluations Program Plan and Appraisal Process Protocols.**

#### Supporting Knowledge and/or Skills. A Site Lead shall demonstrate the ability to:

- a) Describe the focus and content of the independent assessment process.
- b) Describe the responsibilities of personnel performing independent assessments.
- c) Explain the idea of "independence" as it relates to independent assessments.
- d) Identify the customer(s) for independent assessments, their priorities, and information they need from the assessment.
- e) Explain the differences between independent assessment and line management assessment.
- f) Explain the Department's corrective action process as it pertains to Office of Enforcement and Oversight inspection activities.
- g) Explain the importance of using technically-qualified and knowledgeable personnel to perform independent assessments in the areas assessed.

### **3.2 A Site Lead shall demonstrate a working-level knowledge of DOE Standard 1189, *Integration of Safety into the Design Process*.**

#### Supporting Knowledge and/or Skills. A Site Lead shall demonstrate the ability to:

- a) Describe the main ways in which DOE Standard 1189 integrates project management, engineering design, and safety analysis.

- b) Explain the purpose of the Integrated Project Team, Contractor Integrated Project Team, and Safety Design Integration Team.
- c) Describe the purpose, scope, preparation, format, and approval process for the Safety Design Strategy.
- d) Discuss the purpose and content of the Conceptual Safety Design Report, the Conceptual Safety Validation Report, the Preliminary Safety Design Report, the Preliminary Documented Safety Analysis, and the DOE Safety Evaluation Report.
- e) Explain how the facility modification process interfaces with DOE Standard 1189.

## **EVALUATION REQUIREMENTS**

Site Lead candidates shall complete the following requirements to meet the Site Lead Qualification Standard. The criteria identified below shall be used to determine whether the candidate has acquired the competencies outlined in this Standard.

1. Documented completion of the Department-wide General Technical Base Qualification Standard and competency requirements listed in either the Nuclear Safety Systems or the Senior Technical Safety Manager functional area qualification standard in accordance with the requirements contained in that standard.
2. Documented completion of the competency requirements listed in this Site Lead Qualification Standard. Documentation of the successful completion of competency requirements may be satisfied by the Director, Office of Safety and Emergency Management Evaluations, using *any* of the following methods:
  - ✓ Documented evaluation of equivalencies
  - ✓ Documented oral evaluation
  - ✓ Documented observation of performance
  - ✓ Written examination
3. Comprehensive examination. After completing all competency requirements, the prospective Site Lead shall pass an examination that evaluates his/her comprehension of, and ability to apply, the body of knowledge identified in this standard. The examination may be oral, written, practical, or any combination thereof. The development and administration of the examination shall be in accordance with the Administration section of this Standard.
4. Appraisal participation. A Site Lead shall have participated in a minimum of three appraisals as on-the-job training within a period of time not to exceed three years prior to the date of qualification. In addition, at least six months shall be served as a Site Lead designee.

## **CONTINUING TRAINING AND PROFICIENCY REQUIREMENTS**

A Site Lead shall participate in a continuing training and qualification program that includes the following elements:

1. Technical education and/or training covering topics directly related to the duties and responsibilities of a Site Lead, as determined by management. This may include courses and/or training provided by:
  - ✓ Department of Energy
  - ✓ Other government agencies
  - ✓ Outside vendors
  - ✓ Educational institutions.
2. Training covering topics that address deficiencies in Site Lead knowledge and/or skills identified during the individual's qualification evaluation.
3. Training in areas added to the Site Lead Qualification Standard since initial qualification to maintain competencies in appraisal techniques, consistent with the appraisal process guide and accepted audit practices.
4. Specific continuing training requirements to be documented in Individual Development Plans, such as Radiological Worker II (RAD II) training and the Hazardous Waste Operations (HAZWOPER) and its annual refresher training.

## **MAINTENANCE OF PROFICIENCY**

A Site Lead shall maintain his/her proficiency through one or more of the following: regular and active participation in the appraisal and/or site assessment process; review and study of changed or new regulations, standards, procedures, instructions, and other documents related to selected technical functions and systems auditing; and participation in training programs. Records of completion of these maintenance activities will be kept by the Office of Safety and Emergency Management Evaluations administrative support staff. A Site Lead who does not maintain his/her proficiency for a period of two years or more may require requalification.

Requalification may include retraining and re-examination in accordance with the evaluation requirements of this Standard and participation in at least one appraisal. Further information on requalification is provided in the Office of Safety and Emergency Management Evaluations Technical Qualification Program procedure. Appendix C, Technical Qualification Program Requalification Record, is utilized to document requalification activities.

## **ADMINISTRATION**

The development and administration of any applicable examination is the responsibility of the Director, Office of Safety and Emergency Management Evaluations. The Director may delegate this activity to another organization but should retain responsibility for the content and administration of the examination. The integrity of the examination shall be maintained by proctoring the examination and maintaining appropriate confidentiality of files, where

applicable. Copies of objective evidence regarding the types(s) and content of the examination(s) shall be retained by the Office of Safety and Emergency Management Evaluations in accordance with the record retention requirements of the Office of Enforcement and Oversight and shall be updated annually.

## **CERTIFICATION AND QUALIFICATION**

Each Site Lead shall be certified by the Director, Office of Safety and Emergency Management Evaluations, as being qualified to serve as a site lead. This certification shall, as a minimum, document the following:

- Site Lead's name
- Learning method
- Evaluation method
- Date of certification or recertification
- Basis of qualification (education, experience, training, examination, etc.)
- Signature of certifying official.

Appendix A, Office of Safety and Emergency Management Evaluations Site Lead Technical Qualification Record; Appendix B, Technical Qualification Program Site Lead Qualification Card; Appendix C, Technical Qualification Program Requalification Record; and Appendix D, Summary of Equivalencies, are utilized to document qualifications.

Appendix A

DEPARTMENT OF ENERGY



Office of Safety and Emergency Management Evaluations  
Site Lead  
Technical Qualification Record

Name: \_\_\_\_\_

Site: \_\_\_\_\_

The above named employee has satisfactorily completed the Technical Qualification Program (TQP) requirements for this position within the Department of Energy.

**Technical Qualification Record Completed:**

Office Director: \_\_\_\_\_ Date: \_\_\_\_\_

Date Entered TQP: \_\_\_\_\_ Date Completed TQP: \_\_\_\_\_

**Appendix B**  
**Technical Qualification Program**  
***SITE LEAD***  
***QUALIFICATION CARD***

**Name:** \_\_\_\_\_

**Site:** \_\_\_\_\_

<b>Site Lead</b>						
Competency Statement	Learning Method	Evaluation Method	Incumbent Initials & Date	Qualifying Official Signature	Date	Remarks
1.1 A Site Lead shall have demonstrated site knowledge sufficient to provide targeted performance assessment and oversight.						
1.2 A Site Lead shall demonstrate an expert-level knowledge of appraisal techniques (such as observations, interviews, and document reviews) for assessing system performance, reporting results of appraisals, and following up on action taken as the result of appraisals.						
1.3 A Site Lead shall display effective skills during the development and communication of the appraisal plan.						
1.4 A Site Lead shall display effective communication skills and personal attributes during the conduct of an appraisal.						
2.1 A Site Lead shall qualify under the Nuclear Safety Systems or Senior Technical Safety Manager functional areas as defined in the Department's qualification standards.						
3.1 A Site Lead shall demonstrate an expert-level of knowledge of the independent assessment process as outlined in DOE Order 227.1, the Office of Oversight Appraisal Process Guide, and the Office of Safety and Emergency Management Evaluations Appraisal Process Protocols.						
3.2 A Site Lead shall demonstrate a working-level knowledge of DOE Standard 1189, <i>Integration of Safety Into the Design Process</i> .						

**REASON FOR EQUIVALENCE**

1. Job performance (observation, test-out, demonstrated performance).
2. Training or Education completed.
3. Currently qualified or certified in this area (experience).

**APPROVALS**

Date

Director: \_\_\_\_\_

**Appendix C**  
Office of Safety and Emergency Management Evaluations  
Technical Qualification Program  
*Requalification Record*

Individual: \_\_\_\_\_

Position Title: \_\_\_\_\_

Requalification Due Date:

Requalification Compete: \_\_\_\_\_

Signature/Date

- (A) General Technical Base  
(B) Office of Safety and Emergency Management Evaluations Office Specific  
(C) Primary Functional Area  
(D) Secondary Functional Area

[illegible]

## **Appendix D**

### **Summary of Equivalencies**

An equivalency is granted for a competency statement if the participant can provide objective evidence that the knowledge and skills associated with the competency statement have been met. Equivalencies are granted based upon the individual's prior education, training, certification, or experience.

Technical Qualification Program participants are responsible for gathering objective evidence of prior training, education, and/or experience (transcripts, certificates, etc.) that document successful completion of the stated competency. The participant makes initial recommendations of proposed competency equivalencies and assembles the evidence supporting each recommended equivalency. Examples of documented evidence include:

<u>Training</u>	Certificate of completion, course completion examination, validated printout of course completion, and/or written verification of completion from the instructor or program office.
<u>Formal Education</u>	Official transcript, certificate of completion, or written verification of completion from the instructor or institutional official.
<u>Experience</u>	Personnel work history file and oral/written verification by former supervisors.

The Office Director assesses the suggested equivalencies and supporting evidence provided by the participant and determines concurrence, additions, or deletions to the recommendations. The Director, Office of Safety and Emergency Management Evaluations, signs this form when completed for the participant.